

CLAIMS

1. A recording apparatus for forming dots on a medium, comprising:
a head having a plurality of nozzle groups, each of said nozzle
5 groups having a plurality of nozzles that are arranged with a
predetermined nozzle pitch;

wherein said recording apparatus forms said dots on said medium
by repeating alternately an ejection operation in which a liquid is
ejected from said nozzles and a carry operation in which the medium
10 is carried using a predetermined carry amount with respect to said
head; and

wherein a distance between two nozzles that eject the liquid
adjacently and that belong to different ones of said nozzle groups
is equal to a sum of an integral multiple of said carry amount and
15 said predetermined nozzle pitch.

2. A recording apparatus according to claim 1,
wherein there is a nozzle between said two nozzles that does
not eject said liquid.

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3. A recording apparatus according to claim 1,
wherein a nozzle at one end of said plurality of nozzles that
are arranged does not eject said liquid.

25 4. A recording apparatus according to claim 1,
wherein said recording apparatus is capable of performing
recording using different recording modes.

5. A recording apparatus according to claim 4,
30 wherein the nozzles that eject the liquid differ for different
ones of said recording modes.

6. A recording apparatus according to claim 4,
wherein a spacing of said dots formed on said medium differs
35 for different ones of said recording modes.

7. A recording apparatus according to claim 4,
wherein a number of the nozzles that form a single raster line
differs for different ones of said recording modes.

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8. A recording apparatus according to claim 6,
wherein the distance between said two nozzles is equal to a sum
of an even multiple of said carry amount and said nozzle pitch.

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9. A recording apparatus according to claim 1,
wherein said head comprises three or more of said nozzle groups;
and

wherein a number of the nozzles that eject said liquid is equal
between at least two of said nozzle groups.

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10. A recording apparatus according to claim 9,
wherein said two nozzle groups are provided adjacent to each
other in a direction in which said medium is carried.

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11. A recording apparatus according to claim 1,
wherein when a spacing of the dots formed on said medium is D ,
said nozzle pitch is $k \cdot D$, a number of said nozzles that are allowed
to eject said liquid is N , and the carry amount is F ,
 N and k are coprime, and

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$$F = N \cdot D.$$

12. A recording apparatus according to claim 1,
wherein when a single raster line is formed by M nozzles, and
when a spacing of the dots formed on said medium is D , said nozzle
pitch is $k \cdot D$, a number of said nozzles that are allowed to eject said
liquid is N , and the carry amount is F ,

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N/M is an integer,

N/M and k are coprime, and

$$F = (N/M) \cdot D.$$

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13. A recording apparatus according to claim 12,
wherein the distance between said two nozzles is equal to a sum
of an integral multiple of a value obtained by multiplying said carry
amount by M and said predetermined nozzle pitch.

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14. A recording apparatus according to claim 12,
wherein the distance between said two nozzles is equal to a sum
of an integral multiple of a value obtained by multiplying said carry
amount by $k \times M$ and said predetermined nozzle pitch.

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15. A recording apparatus for forming dots on a medium, comprising:
a head having a plurality of nozzle groups, each of said nozzle
groups having a plurality of nozzles that are arranged with a
predetermined nozzle pitch;

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wherein said recording apparatus forms said dots on said medium
by repeating alternately an ejection operation in which a liquid is
ejected from said nozzles and a carry operation in which the medium
is carried using a predetermined carry amount with respect to said
head;

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wherein a distance between two nozzles that eject the liquid
adjacently and that belong to different ones of said nozzle groups
is equal to a sum of an integral multiple of said carry amount and
said predetermined nozzle pitch;

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wherein there is a nozzle between said two nozzles that does
not eject said liquid;

wherein a nozzle at one end of said plurality of nozzles that
are arranged does not eject said liquid;

wherein said recording apparatus is capable of performing
recording using different recording modes;

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wherein the nozzles that eject the liquid differ for different
ones of said recording modes;

wherein a spacing of said dots formed on said medium differs
for different ones of said recording modes;

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wherein a number of the nozzles that form a single raster line
differs for different ones of said recording modes;

wherein the distance between said two nozzles is equal to a sum of an even multiple of said carry amount and said nozzle pitch;

wherein said head comprises three or more of said nozzle groups, and a number of the nozzles that eject said liquid is equal between

5 at least two of said nozzle groups;

wherein said two nozzle groups are provided adjacent to each other in a direction in which said medium is carried;

wherein when a spacing of the dots formed on said medium is D , said nozzle pitch is $k \cdot D$, a number of said nozzles that are allowed
10 to eject said liquid is N , and the carry amount is F ,

N and k are coprime, and

$F = N \cdot D$;

wherein when a single raster line is formed by M nozzles,

N/M is an integer,

15 N/M and k are coprime, and

$F = (N/M) \cdot D$; and

wherein the distance between said two nozzles is equal to a sum of an integral multiple of a value obtained by multiplying said carry amount by $k \times M$ and said predetermined nozzle pitch.

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16. A recording method using a head having a plurality of nozzle groups, each of said nozzle groups having a plurality of nozzles that are arranged with a predetermined nozzle pitch, said method comprising:

forming dots on a medium by repeating alternately an ejection
25 operation in which a liquid is ejected from said nozzles and a carry operation in which the medium is carried using a predetermined carry amount with respect to said head; and

performing said ejection operation such that a distance between two nozzles that eject the liquid adjacently and that belong to
30 different ones of said nozzle groups is equal to a sum of an integral multiple of said carry amount and said predetermined nozzle pitch.

17. A storage medium for storing a program for controlling a recording apparatus, comprising:

35 a storage medium for storing said program;

wherein said recording apparatus includes a head having a plurality of nozzle groups;

wherein each of said nozzle groups has a plurality of nozzles that are arranged with a predetermined nozzle pitch; and

5 wherein said program

10 makes said recording apparatus form said dots on a medium by repeating alternately an ejection operation in which a liquid is ejected from said nozzles and a carry operation in which the medium is carried using a predetermined carry amount with respect to said head, and

15 makes said recording apparatus perform said ejection operation such that a distance between two nozzles that eject the liquid adjacently and that belong to different ones of said nozzle groups is equal to a sum of an integral multiple of said carry amount and said predetermined nozzle pitch.

18. A computer system comprising:

20 a main computer unit; and

a recording apparatus;

wherein said recording apparatus

25 includes a head having a plurality of nozzle groups, each of said nozzle groups having a plurality of nozzles that are arranged with a predetermined nozzle pitch, and

forms said dots on a medium by repeating alternately an ejection operation in which a liquid is ejected from said nozzles and a carry operation in which the medium is carried using a predetermined carry amount with respect to said head; and

30 wherein a distance between two nozzles that eject the liquid adjacently and that belong to different ones of said nozzle groups is equal to a sum of an integral multiple of said carry amount and said predetermined nozzle pitch.